03461500 PIGEON RIVER AT NEWPORT, TN

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft upstream from bridge on U.S. Highway 25 and 70 at Newport, 0.6 mi downstream from Morell Branch, and at mile 6.8

DRAINAGE AREA.--666 mi^2.

PERIOD OF RECORD.-- September 1900 to September 1929, October 1944 to September 1946, August 1948 to February 1982, October 1996 to current year. Monthly discharge only for some peiods, published in WSP 1306. Published as "near Newport" 1945-46.

REVISED RECORDS.--WSP 1143: Drainage area. WSP 1306: 1901, 1904-10. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M), 1948-52 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft NGVD of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi downstream at datum 35.85 ft lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days. The largest of these, Lake Walters, usable capacity, 10,400 cfs-days was completed in 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft present datum, under present conditions about 21.1 ft, due to removal of mill dam in 1945, discharge, 48,000 ft^3/s, and flood of August 30, 1940, reached a stage of 19.3 ft present datum, discharge 36,000 ft^3/s, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 19	1730	19,200	12.19	Sep 17	1545	*48,800	*20.05
Sep 8	1000	40,300	18.08	Sep 28	1430	13,800	10.27
Sep 11	1445	7,500	7.72				

Minimum discharge, 227 ft^3/s, Nov. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	621	309	1,500	1,090	693	790	1,030	577	1,620	1,490	2,420	729
2	533	290	1,650	976	1,300	1,150	903	648	1,270	1,540	1,430	721
3	819	407	1,160	537	1,720	1,380	685	1,520	1,170	2,860	2,770	1,440
4	505	640	1,440	529	927	1,560	547	1,460	1,400	2,800	1,540	1,530
5	496	502	1,240	2,140	1,700	1,880	883	1,040	954	2,000	1,730	636
6	403	955	1,310	2,760	4,070	2,430	1,360	876	589	3,860	1,310	755
7	506	1,680	1,050	1,740	4,630	2,160	901	906	812	2,150	1,070	1,640
8	965	726	1,500	1,130	3,330	2,110	1,150	1,370	801	1,700	832	29,100
9	904	550	933	1,860	2,950	1,610	562	1,150	836	1,280	868	10,700
10	726	643	1,460	733	2,790	1,240	777	1,440	766	979	979	5,240
11	264	623	2,700	882	2,020	1,260	598	1,050	1,010	471	907	3,860
12	302	494	1,710	1,370	2,030	1,430	997	1,370	730	833	1,490	2,800
13	704	588	1,640	1,300	2,230	1,530	2,560	838	941	1,100	1,060	2,310
14	675	907	1,600	1,260	1,310	906	2,990	1,220	792	1,100	1,020	2,440
15	584	634	1,610	486	946	1,540	1,760	1,180	1,030	1,010	502	2,740
16	625	324	1,600	1,510	1,660	1,700	2,060	950	1,550	625	531	2,460
17	382	408	1,670	739	1,680	1,540	1,220	1,240	1,100	729	1,070	27,700
18	372	860	1,890	489	1,540	2,070	1,230	1,180	1,840	678	820	13,000
19	375	9,060	1,880	1,010	1,350	1,440	1,690	1,280	1,230	628	917	6,150
20	588	5,040	1,190	1,630	1,360	1,860	1,210	911	740	771	894	4,210
21	536	2,960	927	1,070	1,340	1,800	1,360	910	679	774	995	3,310
22	530	2,710	1,110	1,350	1,260	1,540	1,270	829	1,340	837	469	2,790
23	362	1,940	1,600	1,010	1,240	1,840	1,120	1,010	1,440	710	376	2,790
24	512	2,060	1,440	588	1,450	1,280	1,220	1,100	1,730	739	649	2,160
25	625	1,730	1,710	1,000	1,350	1,390	589	1,010	1,470	578	869	2,130
26	666	1,260	1,450	1,550	1,800	1,430	1,700	1,050	2,200	1,000	898	2,190
27	676	1,400	1,280	1,190	1,060	602	1,380	1,440	1,430	2,830	597	2,140
28	1,240	916	1,150	1,110	730	463	1,300	764	1,290	e1,200	603	5,700
29	693	1,510	1,640	1,230	505	1,210	1,240	756	1,430	e1,200	618	4,480
30	442	1,000	1,430	597	---	1,400	1,100	549	1,200	1,240	620	3,110
31	523	---	1,940	1,080	---	1,220	---	1,840	---	2,480	810	---
TOTAL	18,154	43,126	46,410	35,946	50,971	45,761	37,392	33,464	35,390	42,192	31,664	150,961
MEAN	586	1,438	1,497	1,160	1,758	1,476	1,246	1,079	1,180	1,361	1,021	5,032
MAX	1,240	9,060	2,700	2,760	4,630	2,430	2,990	1,840	2,200	3,860	2,770	29,100
MIN	264	290	927	486	505	463	547	549	589	471	376	636
CFSM	0.88	2.16	2.25	1.74	2.64	2.22	1.87	1.62	1.77	2.04	1.53	7.56
IN.	1.01	2.41	2.59	2.01	2.85	2.56	2.09	1.87	1.98	2.36	1.77	8.43

03461500 PIGEON RIVER AT NEWPORT, TN—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2004, BY WATER YEAR (WY)												
MEAN	623	773	1,238	1,582	1,821	2,165	1,803	1,340	1,065	916	774	671
MAX	2,263	2,265	3,271	3,407	4,762	5,136	4,270	3,470	2,436	2,498	2,229	5,032
(WY)	(1965)	(1980)	(1962)	(1974)	(1957)	(1963)	(1903)	(2003)	(1967)	(1916)	(1928)	(2004)
MIN	148	234	391	369	853	907	716	651	457	328	158	145
(WY)	(1979)	(1954)	(1904)	(1981)	(1904)	(1915)	(1967)	(1914)	(1925)	(1925)	(1925)	(1953)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1901 - 2004	
ANNUAL TOTAL	584,410		571,431			
ANNUAL MEAN	1,601		1,561		1,224	
HIGHEST ANNUAL MEAN					1,761	1909
LOWEST ANNUAL MEAN					644	1914
HIGHEST DAILY MEAN	23,300	May 6	29,100	Sep 8	31,000	Apr 2, 1920
LOWEST DAILY MEAN	216	Sep 21	264	Oct 11	48	Sep 21, 1953
ANNUAL SEVEN-DAY MINIMUM	243	Sep 16	445	Oct 30	65	Nov 7, 1980
MAXIMUM PEAK FLOW			48,800	Sep 17	50,000	Feb 28, 1902
MAXIMUM PEAK STAGE			20.05	Sep 17	a23.40	Feb 28, 1902
INSTANTANEOUS LOW FLOW			b227	Nov 1	38	Oct 5, 1952
ANNUAL RUNOFF (CFSM)	2.40		2.34		1.84	
ANNUAL RUNOFF (INCHES)	32.64		31.92		24.97	
10 PERCENT EXCEEDS	2,700		2,450		2,410	
50 PERCENT EXCEEDS	1,310		1,200		925	
90 PERCENT EXCEEDS	520		550		328	

a Present datum, under present conditions the stage for this flood would be about 1.9 ft lower, due to removal of dam 1.3 mi downstream in 1945, from reports of Tennessee Valley Authority.
b Also occurred on Nov. 2.
e Estimated